

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for COBALT

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cucurbita pepo	Seed		143.0	5.996171444060427	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Nyssa sylvatica	Leaf	0.0	910.0	5.1099147441652395	--
Rhodymenia palmata	Plant		150.0	4.422797770766523	--
Juglans nigra	Fruit		36.0	3.823018119965352	--
Foeniculum vulgare	Fruit	1.0	31.0	3.2177218230588163	--
Viburnum opulus	Bark		115.0	3.105040721922236	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Echinacea spp	Root		148.0	2.6671392852066766	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Dioscorea sp.	Root		147.0	2.645434231681001	--
Chamaemelum nobile	Flower		58.0	2.612061847366935	--
Polygonum multiflorum	Root		145.0	2.6020241246296503	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Symphytum officinale	Root		129.0	2.254743268218843	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Nyssa sylvatica	Stem	0.0	66.0	2.197755910732485	--
Amorphophallus konjac	Root		125.0	2.1679230541161414	--
Crataegus rhipidophylla	Fruit		20.0	1.8860699698644368	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Chondrus crispus	Plant		70.0	1.8093516592784613	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Diospyros virginiana	Stem	0.0	54.0	1.668646694884476	--
Hordeum vulgare	Stem		49.0	1.4481845216144724	--
Carya glabra	Shoot	0.0	16.5	1.4258095886723021	--
Capsicum annuum	Fruit	4.0	15.1	1.2928795988960315	--
Carica papaya	Fruit	2.0	14.0	1.1597144135765933	--
Cymbopogon citratus	Plant		48.0	1.0906539786192446	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Allium sativum var. sativum	Bulb	0.5	2.5	1.0	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Zingiber officinale	Rhizome	0.9	42.0	1.0	--
Carya ovata	Shoot	0.0	13.5	0.9963488691926929	--
Juniperus communis	Fruit	4.0	12.3	0.9539136726283711	--
Vitis vinifera	Stem		33.0	0.7427055671504605	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Phaseolus vulgaris	Fruit	0.0	10.5	0.736007005742018	--
Schisandra chinensis	Fruit	2.0	10.4	0.7239010798038872	--
Diospyros virginiana	Leaf	0.0	100.0	0.2954881893911974	--
Viscum album	Leaf		92.0	0.24793829749219454	--
Agathosma betulina	Leaf		87.0	0.21821961505531773	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Barosma betulina	Leaf		87.0	0.21821961505531773	--
Elytrigia repens	Plant		18.0	0.11061168681122152	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Prunus persica	Bark		20.0	0.08158977670351007	--
Serenoa repens	Fruit	0.6	5.0	0.07018107914482831	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Euphrasia officinalis	Plant	2.3	14.7	0.002807034712339081	--
Passiflora incarnata	Flower	1.0	10.0	-0.004258333627921315	--
Mentha pulegium	Plant		14.0	-0.020060618763181548	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Foeniculum vulgare	Seed	0.3	3.1	-0.07149253835510355	--
Tabebuia heptaphylla	Bark	3.0	15.1	-0.07435664047092941	--
Stellaria media	Plant	1.0	12.1	-0.08212996391102297	--
Nepeta cataria	Plant	1.4	11.8	-0.09193038682910333	--
Plantago psyllium	Seed	0.6	2.5	-0.0975154003240051	--
Plantago major	Seed	0.8	2.5	-0.0975154003240051	--
Allium cepa	Seed		2.5	-0.0975154003240051	--
Medicago sativa	Plant	2.0	11.5	-0.10173080974718347	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cuminum cyminum	Seed		2.2	-0.11052683130845588	--
Apium graveolens	Seed	0.4	2.0	-0.11920111863142302	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Bertholletia excelsa	Seed		1.9	-0.12353826229290665	Furr, A.K., et al. 1979
Trigonella foenum-graecum	Seed	0.2	1.8	-0.12787540595439015	--
Stevia rebaudiana	Leaf		25.0	-0.1502920471619546	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Vigna unguiculata	Seed	0.0	1.2	-0.1538982679232917	--
Vigna unguiculata	Seed	0.0	1.2	-0.1538982679232917	--
Sinapis alba	Seed		1.1	-0.1582354115847752	--
Phaseolus vulgaris	Seed	0.034	1.05	-0.160403983415517	--
Carum carvi	Seed		1.0	-0.16257255524625883	--
Phaseolus lunatus	Seed	0.0	1.0	-0.16257255524625883	--
Glycine max	Seed	0.0	0.78	-0.17211427130152268	--
Larrea tridentata	Plant	3.0	9.3	-0.17360057781310526	--
Simmondsia chinensis	Seed		0.7	-0.17558398623070962	--
Phaseolus acutifolius	Seed	0.4	0.63	-0.17861998679374813	--
Brassica rapa	Seed		0.6	-0.1799211298921931	--
Myristica fragrans	Seed		0.6	-0.1799211298921931	--
Phaseolus coccineus	Seed		0.54	-0.18252341608908335	--
Frangula purshiana	Bark	3.2	11.6	-0.18574693845267193	--
Papaver somniferum	Seed		0.4	-0.1885954172151604	--
Carya illinoensis	Seed		0.4	-0.1885954172151604	--
Avena sativa	Seed	0.0	0.32	-0.19206513214434717	Jim Duke's personal files.*
Sesamum indicum	Seed		0.3	-0.19293256087664387	--
Corylus avellana	Seed	0.08	0.3	-0.19293256087664387	--
Juglans nigra	Seed		0.3	-0.19293256087664387	Furr, A.K., et al. 1979
Pisum sativum	Seed	0.002	0.24	-0.19553484707353413	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Pistacia vera</i>	Seed		0.2	-0.19726970453812753	--
<i>Prunus dulcis</i>	Seed	0.08	0.2	-0.19726970453812753	--
<i>Quercus rubra</i>	Seed		0.2	-0.19726970453812753	--
<i>Cocos nucifera</i>	Seed		0.2	-0.19726970453812753	Furr, A.K., et al. 1979
<i>Carya ovata</i>	Seed		0.2	-0.19726970453812753	--
<i>Juglans cinerea</i>	Seed		0.2	-0.19726970453812753	--
<i>Triticum aestivum</i>	Seed	0.06	0.15	-0.19943827636886935	--
<i>Anacardium occidentale</i>	Seed		0.1	-0.20160684819961103	--
<i>Arachis hypogaea</i>	Seed	0.02	0.08	-0.20247427693190787	--
<i>Hydrastis canadensis</i>	Root	4.2	15.3	-0.21312131765045375	--
<i>Eriodictyon californicum</i>	Leaf	3.0	14.0	-0.21567314852308356	--
<i>Angelica sinensis</i>	Root	3.3	15.1	-0.21746232835558876	--
<i>Urtica dioica</i>	Leaf	2.6	13.2	-0.22042813771298392	--
<i>Turnera diffusa</i>	Leaf	3.0	12.9	-0.22221125865919641	--
<i>Verbascum thapsus</i>	Leaf	6.0	12.8	-0.22280563230793393	--
<i>Echinacea purpurea</i>	Root	4.0	14.8	-0.2239738444132915	--
<i>Dioscorea villosa</i>	Root	3.5	14.7	-0.2261443497658589	--
<i>Harpagophytum procumbens</i>	Root	3.0	14.5	-0.23048536047099405	--
<i>Thymus vulgaris</i>	Leaf	2.0	11.3	-0.23172123703899697	--
<i>Smilax spp</i>	Root	3.0	14.2	-0.2369968765286966	--
<i>Smilax officinalis</i>	Root	3.0	14.2	-0.2369968765286966	--
<i>Salix alba</i>	Bark	1.6	9.8	-0.24303337741471084	--
<i>Mentha x piperita</i>	Leaf	1.4	9.3	-0.24360871001374768	--
<i>Humulus lupulus</i>	Fruit		2.4	-0.24457299524657042	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
<i>Centella asiatica</i>	Leaf	0.8	7.3	-0.2554961829884984	--
<i>Rosa canina</i>	Fruit	0.4	2.3	-0.2566789211847011	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Larrea tridentata	Bark		9.3	-0.25894627712638835	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Ruscus aculeatus	Root	4.0	12.8	-0.26738395146464233	--
Cuminum cyminum	Fruit		2.2	-0.268784847122832	--
Rhizophora mangle	Leaf		5.0	-0.2691667769094618	--
Silybum marianum	Leaf	1.0	4.1	-0.2745161397480997	--
Hibiscus sabdariffa	Flower	0.6	5.0	-0.2767916858148855	--
Rubus idaeus	Leaf	0.6	3.4	-0.27867675528926233	--
Brassica oleracea var. capitata l.	Leaf	0.001	2.9	-0.28164862353295	--
Senna alexandrina	Leaf	0.6	2.7	-0.2828373708304252	--
Arctium lappa	Root	3.0	12.0	-0.28474799428518266	--
Lobelia inflata	Leaf	0.3	2.2	-0.2858092390741129	--
Arctostaphylos uva-ursi	Leaf	0.2	1.7	-0.28878110731780054	--
Cinnamomum verum	Leaf		1.1	-0.29234734921022576	--
Fragaria spp	Fruit	0.004	2.0	-0.29299669899909336	--
Crataegus laevigata	Fruit	0.6	2.0	-0.29299669899909336	--
Apium graveolens	Fruit	0.4	2.0	-0.29299669899909336	--
Lactuca sativa	Leaf	0.002	0.87	-0.293714408602322	--
Brassica oleracea var. botrytis l.	Leaf	0.02	0.6	-0.29531921745391343	--
Brassica oleracea var. italica	Leaf	0.02	0.6	-0.29531921745391343	ACTA AGRIC SCAND SUPPL 22: 1980
Liquidambar styraciflua	Leaf	0.0	0.57	-0.2954975295485347	--
Cichorium endivia	Leaf	0.2	0.24	-0.29745896258936844	--
Brassica pekinensis	Leaf	0.19	0.21	-0.2976372746839897	--
Lepidium sativum	Leaf		0.012	-0.2988141345084901	--
Equisetum arvense	Plant	1.0	5.3	-0.3042728833875083	--
Petroselinum crispum	Plant	0.4	4.7	-0.3238737292236686	--
Glycyrrhiza glabra	Root	2.0	10.1	-0.3259875959839659	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Allium sativum var. sativum	Root	3.7	10.0	-0.3281581013365335	--
Silybum marianum	Plant		4.1	-0.3434745750598291	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Ephedra sinica	Plant	0.8	4.0	-0.3467413826991892	--
Cyripedium pubescens	Root		9.0	-0.3498631548622089	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Cnicus benedictus	Plant	0.5	3.8	-0.35327499797790946	--
Lycopersicon esculentum	Fruit	0.0	1.4	-0.36563225462787763	--
Taraxacum officinale	Root	1.0	8.0	-0.3715682083878844	--
Achillea millefolium	Plant	0.6	3.1	-0.37614265145342984	--
Carthamus tinctorius	Flower	0.4	2.6	-0.4076076948646282	--
Spirulina spp.	Plant		2.0	-0.41207753548639076	--
Carum carvi	Fruit		1.0	-0.4140559583804006	--
Humulus lupulus	Flower	0.5	2.4	-0.41850902895210695	--
Berberis vulgaris	Bark		4.2	-0.42125785418549894	--
Avena sativa	Plant	0.4	1.7	-0.4218779584044709	--
Fucus vesiculosus	Plant	0.2	1.6	-0.425144766043831	--
Coriandrum sativum	Fruit		0.9	-0.42616188431853125	--
Curcuma longa	Plant	0.5	1.5	-0.42841157368319116	--
Spinacia oleracea	Plant	0.001	1.2	-0.4382119966012714	--
Capsicum frutescens	Fruit	0.5	0.8	-0.43826781025666195	--
Elettaria cardamomum	Fruit	0.4	0.8	-0.43826781025666195	--
Zea mays	Fruit	0.01	0.8	-0.43826781025666195	--
Valeriana officinalis	Root	0.6	4.8	-0.4410243796700459	--
Scutellaria lateriflora	Plant	0.2	1.1	-0.4414788042406314	--
Myrica cerifera	Bark	1.0	3.5	-0.4435359137818475	--
Trachyspermum ammi	Fruit		0.7	-0.4503737361947928	--
Syzygium aromaticum	Fruit		0.7	-0.4503737361947928	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Trifolium pratense	Flower	0.3	1.8	-0.45121303121454254	--
Berberis vulgaris	Root		4.2	-0.454047411785451	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Zingiber officinale	Root	0.3	4.2	-0.454047411785451	--
Cimicifuga racemosa	Root	1.0	3.8	-0.4627294331957213	--
Hydrangea arborescens	Root	1.3	3.8	-0.4627294331957213	--
Actaea racemosa	Root		3.8	-0.4627294331957213	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Panax quinquefolius	Plant	0.06	0.44	-0.46303973466040793	--
Caulophyllum thalictroides	Root	0.4	3.6	-0.4670704439008563	--
Anethum graveolens	Plant	0.002	0.29	-0.4679399461194481	ACTA AGRIC SCAND SUPPL 22: 1980
Rumex crispus	Root	1.0	3.5	-0.46924094925342386	--
Triticum aestivum	Plant	0.03	0.15	-0.4725134768145522	--
Pisum sativum	Plant		0.15	-0.4725134768145522	--
Althaea officinalis	Root	0.4	3.3	-0.473581959958559	--
Prunus serotina	Stem	0.0	5.4	-0.4742456292999594	--
Pimenta dioica	Plant		0.05	-0.47578028445391224	--
Quercus alba	Stem	0.0	5.32	-0.4777730240722794	--
Panax ginseng	Root	0.7	3.1	-0.477922970663694	--
Prunus persica	Fruit	0.005	0.45	-0.48063855104011965	--
Piper nigrum	Fruit	0.3	0.4	-0.48669151400918487	--
Astragalus membranaceus	Root	0.4	2.5	-0.4909460027790993	--
Prunus domestica	Fruit	0.005	0.34	-0.49395506957206337	--
Ulmus rubra	Bark	0.3	1.8	-0.49763977280155086	--
Inula helenium	Root	0.4	1.8	-0.5061395402470722	--
Citrus paradisi	Fruit	0.005	0.22	-0.5084821806978201	--
Vitis vinifera	Fruit	0.005	0.22	-0.5084821806978201	--
Syzygium aromaticum	Flower		0.7	-0.5111703686956748	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Gentiana lutea</i>	Root	0.3	1.4	-0.5148215616573423	--
<i>Cucumis sativus</i>	Fruit	0.0	0.14	-0.5181669214483248	--
<i>Yucca baccata</i>	Root	0.3	1.2	-0.5191625723624773	--
<i>Rubus chamaemorus</i>	Fruit	0.003	0.125	-0.5199828103390444	--
<i>Pyrus communis</i>	Fruit	0.015	0.111	-0.5216776399703826	--
<i>Cucumis melo</i>	Fruit	0.087	0.11	-0.5217986992297641	--
<i>Vaccinium myrtillus</i>	Fruit		0.1	-0.5230092918235771	--
<i>Sorbus aucubaria</i>	Fruit	0.005	0.08	-0.5254304770112033	--
<i>Solanum melongena</i>	Fruit	0.07	0.08	-0.5254304770112033	--
<i>Quercus alba</i>	Bark	0.2	0.9	-0.5262829922825704	--
<i>Citrus sinensis</i>	Fruit	0.001	0.055	-0.5284569584957359	--
<i>Malus domestica</i>	Fruit	0.005	0.043	-0.5299096696083117	--
<i>Ribes nigrum</i>	Fruit	0.002	0.027	-0.5318466177584126	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Citrus reticulata</i>	Fruit		0.005	-0.5345099214648011	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Musa x paradisiaca</i>	Fruit		0.005	-0.5345099214648011	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Cinnamomum verum</i>	Bark		0.6	-0.535830732109577	--
<i>Beta vulgaris</i>	Root	0.001	0.42	-0.5360925141125041	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Flower	0.001	0.125	-0.5425117041971756	--
<i>Brassica napus</i> var. <i>napobrassica</i>	Root	0.001	0.1	-0.5430381312407203	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Daucus carota</i>	Root	0.005	0.058	-0.5439497434887988	--
<i>Apium graveolens</i>	Root		0.005	-0.5451001113256595	ACTA AGRIC SCAND SUPPL 22: 1980
<i>Liquidambar styraciflua</i>	Stem	0.0	3.6	-0.5536120116771606	--
<i>Quercus rubra</i>	Stem	0.0	3.3	-0.5668397420733609	--
<i>Symphoricarpos orbiculatus</i>	Stem	0.0	2.4	-0.6065229332619616	--
<i>Quercus velutina</i>	Stem	0.0	2.29	-0.6113731010739016	--
<i>Sassafras albidum</i>	Stem	0.0	0.56	-0.6876530130253229	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Quercus phellos	Stem	0.0	0.5	-0.6902985591045628	--
Rhus glabra	Stem	0.0	0.47	-0.691621332144183	--
Quercus stellata	Stem	0.0	0.34	-0.6973533486492031	--
Juniperus virginiana	Shoot	0.0	1.32	-0.7472616518945201	--
Pinus echinata	Shoot	0.03	1.26	-0.7558508662841124	--
Asparagus officinalis	Shoot	0.09	0.12	-0.9190459396863638	--
Curcuma longa	Rhizome		1.0	-1.0	--
Allium cepa	Bulb	0.001	0.2	-1.0000000000000002	--
Rheum rhabarbarum	Pt	0.005	0.1		--
Eleutherococcus senticosus	Root				--
Stachys officinalis	Plant				--
Vaccinium vitis-idaea	Fruit				--
Brassica rapa	Root				--
Aloe vera	Leaf				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Raphanus sativus	Root				--
Ribes rubrum	Fruit				--
Bupleurum chinense	Root				--
Parthenium integrifolium	Root				--
Symphytum officinale	Leaf				--
Chrysanthemum parthenium	Plant				--
Juglans nigra	Pericarp	0.4	3.6		--
Eupatorium perfoliatum	Plant				--
Vaccinium macrocarpon	Fruit				--
Pastinaca sativa	Root				--
Ribes uva-crispa	Fruit				--
Ginkgo biloba	Leaf				--
Chrysanthemum parthenium	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Gymnema sylvestre	Leaf				--
Armoracia rusticana	Root				--
Aloe spp.	Leaf				--
Linum usitatissimum	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Borago officinalis	Plant				--
Tanacetum parthenium	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Solanum tuberosum	Tuber	0.002	0.3		--
Myristica fragrans	Aril		0.4		--
Acacia catechu	Plant				--
Salvia officinalis	Leaf				--
Asparagus officinalis	Root				--
Zea mays	Silk Stigma Style		64.0		--